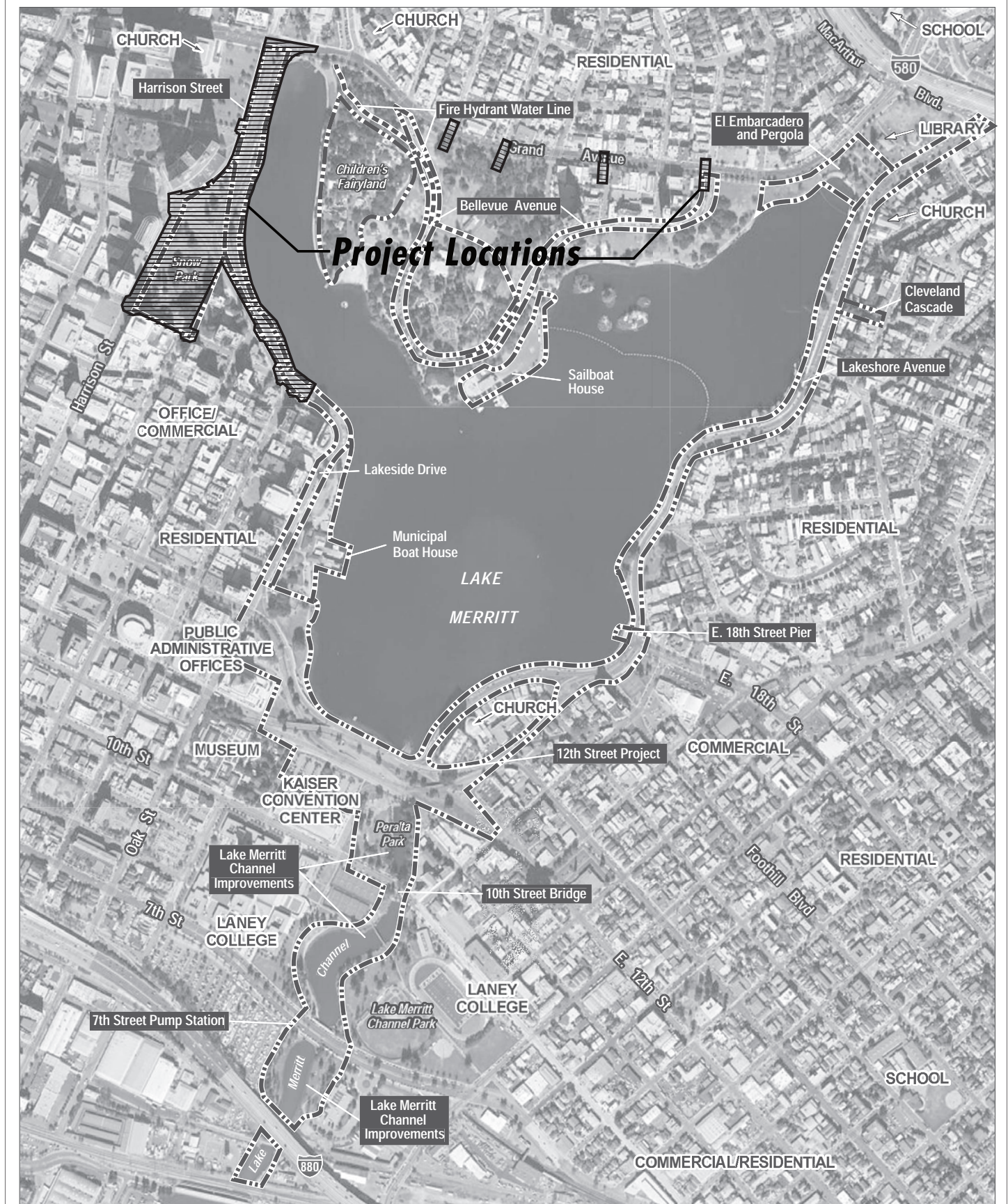


ATTACHMENT
PROJECT AREA LANDUSE



Project Boundary

New Class II Bike Lanes

Improved Lakeside Trail

New Pedestrian Sidewalk/ Path

Reduce southbound Harrison travel lanes from 4 to 3 and restripe to include new southbound bike lane from Grand Avenue to 20th Street.

Modification of the westbound Harrison Street approach to 20th Street to provide two left-turn lanes, two through lanes, and one right-turn lane with bike lane.

Modification of signal phasing and timing at Lakeside Drive/Harrison Street intersection, new pedestrian crosswalks.

Traffic signal work (new mast arms, heads, etc.) and timing/phasing changes for re-configured intersection design.

Restripe 20th Street east-bound to provide two through lanes, and one thru-right-turn lane.

Collect street runoff in raingarden.

Snow Park improvements pathway lighting and playground.

Collect street runoff in raingarden.

Restripe Lakeside Drive from Jackson to 19th existing parking to remain.

Remove portion of 20th street for Pedestrian Promenade Plaza.

Mid-block crosswalk for pedestrian crossings from Snow Park to Lake Merritt.

New 6' Sidewalk and 4' DG Jogging Path along Lakeside Drive to Harrison .

Reduction of Lakeside Drive from four (4) to two (2) travel lanes with bike lanes northbound and southbound. Remove 10 parking spots east side to 19th Street for stormwater collection with curb cuts, swale and inlets.

Raingarden

Existing parking to remain

Jackson Street

Lake Merritt

Lakeside Drive

21st

20th

19th Street

Harrison Street

Grand Avenue

Restore historic overlook features. Repave plaza with Glen Echo Creek.

Improve pedestrian entry at Harrison and Grand intersection.

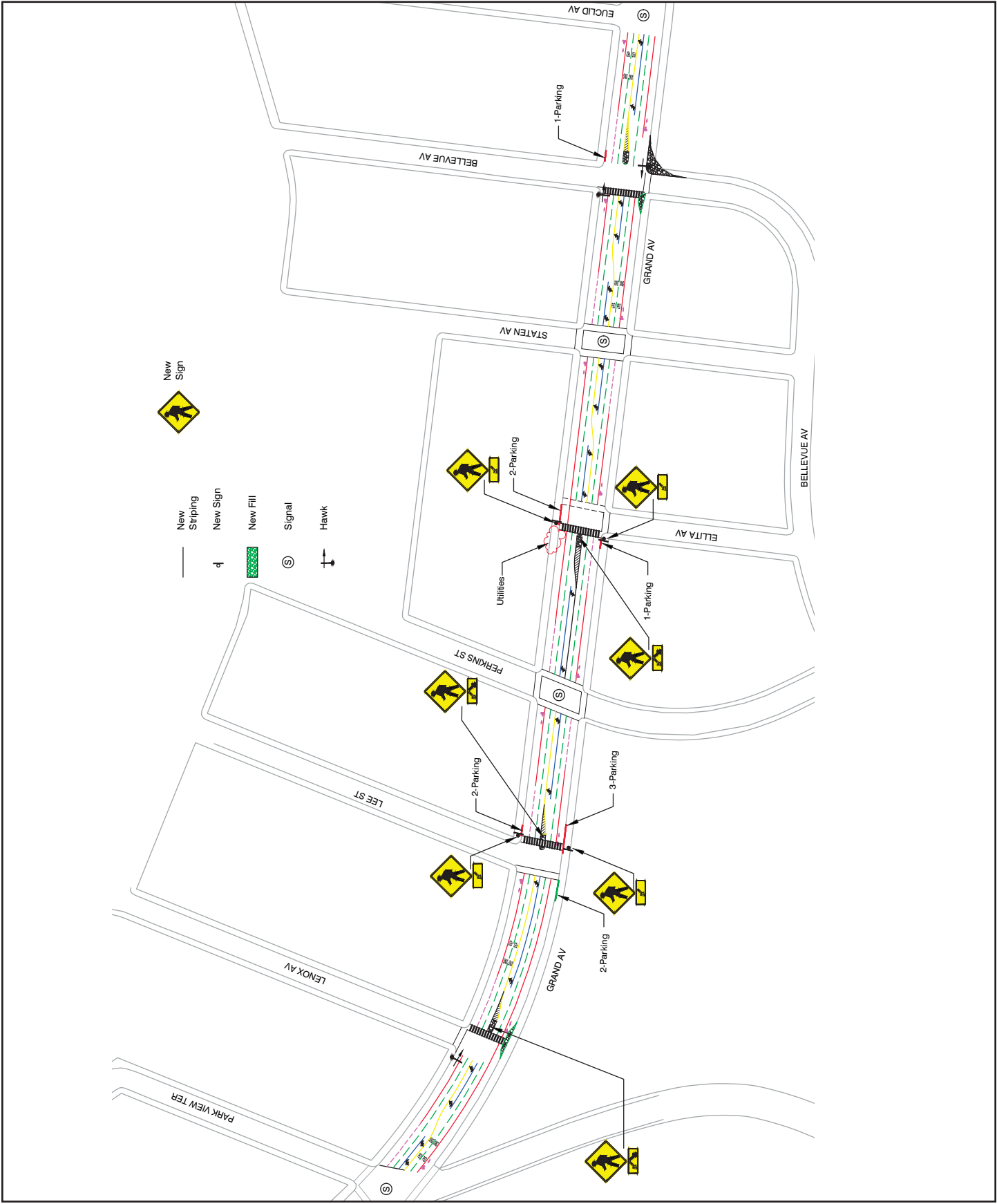
New curb on Harrison to increase open space next to lake by 14' include curb cuts and swale.

Collect street runoff in rain-garden.

Improve and widen existing trail adjacent to Lake Merritt to 10' multi-use trail.

Street access nodes with accessible pathways to lake side trails.

Re-alignment and modification of northbound Lakeside Drive at Harrison Street to provide one left-turn lane and two right-turn lanes.



Lakeside Green Streets ADT

Location	Existing		2030	
	ADT	Truck ADT	ADT	Truck ADT
20th Street	6,810	136	13,155	263
Harrison Street	20,045	401	35,530	711
Lakeside Drive	13,530	294	21,175	461



Date: July 22, 2011

Memorandum

To: Alison Schwarz, City of Oakland Public Works Agency

cc: John Hykes, DC&E

From: Mark Bowman, P.E.

Subject: Measure DD Addendum EIR Transportation Study

P10044

Dowling Associates has performed an analysis of the proposed project modifications to the street system at Snow Park. The proposed project modifications include the following intersections:

1. Harrison St. & Grand Ave.
2. Harrison St. & 21st St.
3. Harrison St. & Lakeside Dr.
4. Harrison St. & 20th St
5. Lakeside Dr. & 20th St.
6. Webster St. & 20th St.
7. Lakeside Dr. & Jackson St.
8. Lakeside Dr. & Madison St.

The proposed project includes refinements to the original Measure DD configuration. The proposed project street concept was developed through a collaborative consideration of design opportunities and constraints by The Planning Center | DC&E, TranSystems, and Dowling Associates and City of Oakland staff. The proposed street concept at 20th Street, shown in Exhibit 1, features a minimum design speed of 25 mph. The proposed street concept to the south along Lakeside Drive is shown in Exhibit 2.

The street modifications that are modifications to the original Measure DD Configuration that will be made as part of the project include:

- Modification of the westbound Harrison Street approach to 20th Street to provide an additional left-turn lane resulting in a total of 5 lanes on the westbound approach: two left-turn lanes, two through lanes, and one right-turn lane
- Reduction of southbound travel lanes on Harrison Street approaching the Lakeside Drive intersection from five (5) lanes to four (4) lanes, including two left-turn lanes and two through lanes

Exhibit 1: Schematic of Proposed Street Concept at 20th Street, Harrison Street & Lakeside Drive



Source: DC&E

Exhibit 2: Schematic of the Proposed Street Concept along Lakeside Drive



Other changes from existing conditions that were part of the original Measure DD configuration that are still included in the project include:

- Reduction of southbound travel lanes on Harrison Street between W. Grand Avenue and Lakeside Drive from four (4) lanes to three (3) lanes
- Modification of signal phasing and timing at the 20th Street / Harrison Street intersection to eliminate the signal phase required for the northbound Lakeside Drive approach
- Modification of northbound Lakeside Drive at Harrison Street to provide one left-turn lane and two right-turn lanes
- Reduction of southbound travel lanes on Lakeside Drive from just south of Harrison Street to just north of Jackson Street from two (2) lanes to one (1) lane adjacent to Snow Park (see Exhibit 1).
- Reduction of northbound travel lanes on Lakeside Drive from Madison Street just south of Harrison Street from two (2) lanes to one (1) lane
- Installation of bike lanes along Harrison Street from West Grand Avenue to 20th Street and along Lakeside Drive to the south project limits

Traffic Impact Analysis

Level of Service Methodology

The level of service (LOS) at study intersections was analyzed for the a.m. peak and p.m. peak hours using methodologies described in the Highway Capacity Manual.¹ The intersection operations analysis was conducted using the Synchro analysis tool, as required by the City. The signal timing sheets were provided by the City of Oakland staff.

The LOS for signalized and unsignalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, and lost travel time. Delay is a complex measure and is dependent upon a number of variables, including the number of vehicles in the traffic stream. For signalized intersections, delay is also dependent on the quality of signal progression, the signal cycle length, and the “green” ratio for each approach or lane group. For intersections with one or two stop signs, delay is dependent on the number of gaps available in the uncontrolled traffic stream. Exhibit 3 and Exhibit 4 define LOS and criteria for the signalized and unsignalized intersection analyses.

Exhibit 3: Intersection Level of Service Definition for Signalized Intersections

Level of Service	Description of Traffic Conditions	Average Delay Per Vehicle (Seconds)
Signalized Intersections		
A	Free flowing. Most vehicles do not have to stop.	≤10.0
B	Minimal delays. Some vehicles have to stop, although waits are not bothersome.	>10.0 and ≤20.0
C	Acceptable delays. Significant numbers of vehicles have to stop because of steady, high traffic volumes. Still, many pass without stopping.	>20.0 and ≤35.0
D	Tolerable delays. Many vehicles have to stop. Drivers are aware of heavier traffic. Cars may have to wait through more than one red light. Queues begin to form, often on more than one approach.	>35.0 and ≤55.0
E	Significant delays. Cars may have to wait through more than one red light. Long queues form, sometimes on several approaches.	>55.0 and ≤80.0
F	Excessive delays. Intersection is jammed. Many cars have to wait through more than one red light, or more than 60 seconds. Traffic may back up into “up-stream” intersections.	>80.0

¹ Transportation Research Board, 2000. Highway Capacity Manual.

Measure DD Addendum EIR Transportation Study

July 22, 2011

Exhibit 4: Intersection Level of Service Definition for Signalized Intersections

Level of Service	Description of Traffic Conditions	Average Delay Per Vehicle (Seconds)
Unsignalized Intersections		
A	Little or no delay	≤10.0
B	Short traffic delay	>10.0 and ≤15.0
C	Average traffic delays	>15.0 and ≤25.0
D	Long traffic delays	>25.0 and ≤35.0
E	Very long traffic delays	>35.0 and ≤50.0
F	Extreme delays potentially affecting other traffic movements in the intersection	>50.0

Existing Intersection Levels of Service

The existing intersection LOS for the study intersections (without the implementation of the proposed project) are shown in Exhibit 5. As shown in the exhibit, all study intersections currently operate at acceptable LOS C or better.

Exhibit 5: Existing Intersection Levels of Service

Intersection		<u>AM Peak</u>		<u>PM Peak</u>	
		LOS ¹	Delay ²	LOS ¹	Delay ²
1	Harrison St. & Grand Ave.	C	26.6	C	29.4
2	Harrison St. & 21st St.	A	9.0	B	14.3
3	Harrison St. & Lakeside Dr.	A	6.5	B	15.0
4	Harrison St. & 20th St	C	32.9	C	34.2
5	Lakeside Dr. & 20th St.	B	19.6	B	12.2
6	Webster St. & 20th St.	B	19.8	B	17.5
7	Lakeside Dr. & Jackson St.	A	8.9	A	9.0
8	Lakeside Dr. & Madison St.	A	4.1	A	3.7
Source: Dowling Associates, 2011					
Notes:					
¹ LOS = Level of Service					
² Average control delay in seconds per vehicle					

Significance Criteria

The significance criteria are based on the current version from City of Oakland dated June 30, 2011. Only the thresholds that would apply to this type of project are listed below, along

Measure DD Addendum EIR Transportation Study

July 22, 2011

with the threshold number from the City's CEQA Thresholds of Significance Guidelines. The project would only affect traffic operations on signalized intersections within the Downtown area, would not affect traffic operations on the CMP Network or MTS, nor would it generate substantial multi-modal traffic traveling across at-grade railroad crossings, result in a change in air traffic patterns, or fundamentally conflict with adopted City policies.

Traffic Load and Capacity Thresholds²

2. At a study, signalized intersection which is located within the Downtown area, the project would cause the LOS to degrade to worse than LOS E (i.e., LOS F);
4. At a study, signalized intersection for all areas where the level of service is LOS E, the project would cause an increase in the average delay for any of the critical movements of six (6) seconds or more, or degrade to worse than LOS E (i.e., LOS F);
5. At a study, signalized intersection for all areas where the level of service is LOS F, the project would cause (a) the overall volume-to-capacity ("V/C") ratio to increase 0.01 or more or (b) the critical movement V/C ratio to increase 0.02 or more;
9. Result in substantially increased travel times for AC Transit buses;

Traffic Safety Thresholds

10. Directly or indirectly cause or expose roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) to a permanent and substantial transportation hazard due to a new or existing physical design feature or incompatible uses;
12. Directly or indirectly result in a permanent substantial decrease in pedestrian safety;
13. Directly or indirectly result in a permanent substantial decrease in bus rider safety;
14. Directly or indirectly result in a permanent substantial decrease in bicyclist safety;

Other Thresholds

17. Result in a substantial, though temporary, adverse affect on the circulation system during construction of the project.

Cumulative Impacts

18. A project's contribution to cumulative impacts is considered "considerable" (i.e., significant) when the project exceeds at least one of the thresholds listed above in a future year scenario.

² All LOS calculations shall be based on the methodologies in the 2000 *Highway Capacity Manual*.

Measure DD Addendum EIR Transportation Study

July 22, 2011

Impacts and Mitigations Measures

This section evaluates transportation related impacts of the proposed Project. Study intersections were evaluated for cumulative year 2015 and 2030 conditions.

Intersections

Baseline Conditions

Existing conditions were evaluated as a baseline to determine the extent of the impacts of the project. Traffic operations for baseline conditions at study intersections are shown in Exhibit 6. The project would increase delays at most intersections. However, all intersections would operate at LOS C or better – above the City's traffic load and capacity thresholds. The project would improve traffic operations at the Harrison Street & 20th Street intersection from LOS C to LOS B during both the a.m. and p.m. peak hours. The project impacts at intersections would be less than significant.

Exhibit 6: Traffic Operations at Intersections for Baseline Conditions (2011)

Intersection	Existing				Existing + Project			
	AM Peak		PM Peak		AM Peak		PM Peak	
	LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²	LOS	Delay ²
1 Harrison St. & Grand Ave.	C	26.6	C	29.4	C	26.6	C	29.4
2 Harrison St. & 21st St.	A	9.0	B	14.3	A	9.2	B	12.3
3 Harrison St. & Lakeside Dr.	A	6.5	B	15.0	B	14.2	C	20.2
4 Harrison St. & 20th St	C	32.9	C	34.2	B	14.5	B	20.2
5 Lakeside Dr. & 20th St.	B	19.6	B	12.2	(Intersection would not exist)			
6 Webster St. & 20th St.	B	19.8	B	17.5	B	19.8	B	18.1
7 Lakeside Dr. & Jackson St.	A	8.9	A	9.0	A	8.9	B	18.6
8 Lakeside Dr. & Madison St.	A	4.1	A	3.7	A	5.8	A	4.0
Source: Dowling Associates, 2011								
Notes:								
¹ LOS = Level of Service								
² Average control delay in seconds per vehicle								

Cumulative Conditions

Future conditions were evaluated to determine the extent to which impacts would result from the project in combination with other reasonably foreseeable projects. Reasonably foreseeable projects included general growth anticipated in the Bay Area as reflected in the land use data sets for future years in the Alameda Countywide Travel Model and two

Measure DD Addendum EIR Transportation Study

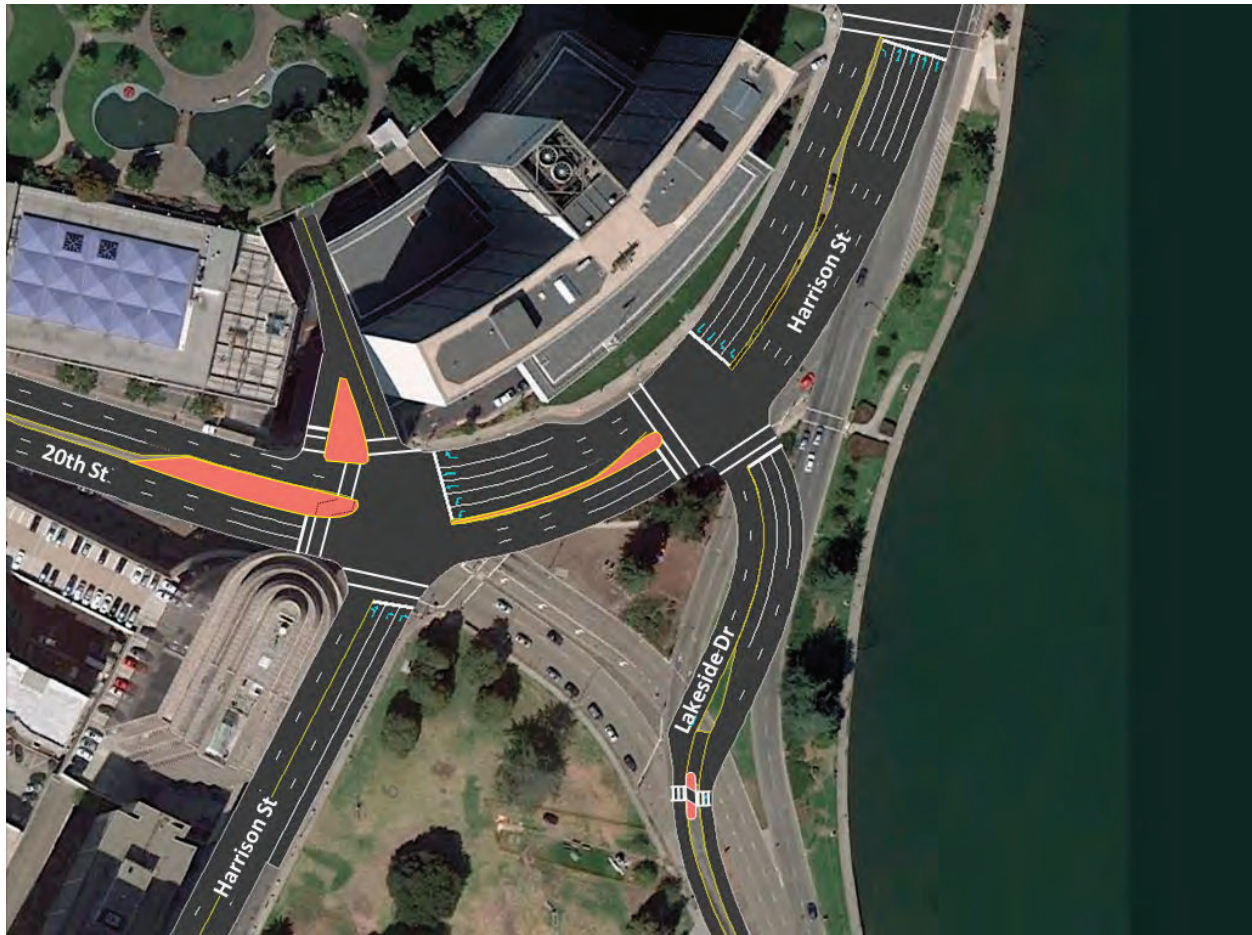
July 22, 2011

projects in the immediate project vicinity – Kaiser Center Office project and the Emerald Views Residential Development project at 222 19th Street. The Kaiser Center Office project included the following additional modifications to the Harrison Street / 20th Street intersection either as part of that project or fully funded mitigation of its impacts:

- Reversing the traffic flow in the existing porte cochere at the east entrance to the existing Kaiser Center Tower to run eastbound away from the Harrison Street / 20th Street intersection
- Reconfiguration of the inbound-only driveway southwest of the existing Kaiser Center Tower to include an outbound movements with a single left-through lane and a channelized right-turn lane with stop-sign control
- Modification of the eastbound 20th Street approach to Harrison Street to provide one left-through lane, one through lane, and one right-through lane
- Modification of the northbound Harrison Street approach to 20th Street to provide one left-through lane, and two right-turn lanes
- Modification of signal phasing, timing, and median design at the 20th Street / Harrison Street intersection to provide:
- Split phasing for the north and southbound movements and for the east and westbound movements
- Two-stage pedestrian crossing across 20th Street at Harrison Street with offset crosswalk and pedestrian railings
-

The street concept that would result from additional modifications made by the Kaiser Center Office project in combination with the proposed project is shown in Exhibit 7. Traffic signal phasing with pedestrian signal phases and signal timing for the Harrison Street and 20th Street intersection are shown in Exhibit 8 .

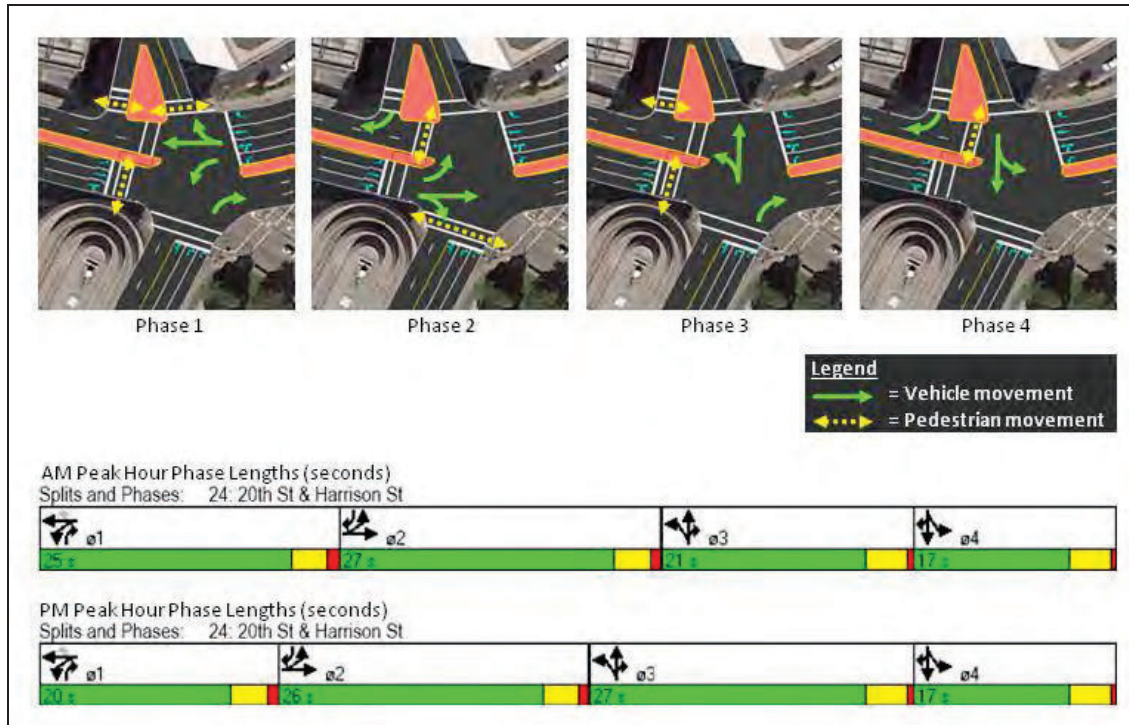
Exhibit 7: Schematic of Proposed Street Concept at 20th Street, Harrison Street & Lakeside Drive



Measure DD Addendum EIR Transportation Study

July 22, 2011

Exhibit 8: Signal Phasing for 20th Street & Harrison Street Intersection



Near-Term (2015) Conditions

For 2015 conditions, the assumption was made that the Kaiser Center Office project would be developed consistent with the program described in the Kaiser Center DEIR and that the street system would be modified as described above for the Kaiser Center Office project. It was also assumed that the Emerald Views Residential Development project (at 222 19th Street) would also be developed consistent with the program proposed for that project. Traffic volumes for the analysis of near-term (2015) conditions were taken from the traffic study for the Emerald Views Residential Development project, which included traffic volumes for the Kaiser Center Office project.

Traffic operations for near-term conditions at study intersections are shown in Exhibit 9. The project in combination with all reasonably foreseeable projects would increase delays at most intersections by 2015. However, all intersections would operate at LOS D or better – above the City's traffic load and capacity thresholds. The project would improve traffic operations at the Harrison Street & 20th Street intersection from LOS C to LOS B during the p.m. peak hour. The cumulative impacts of the project in 2015 at intersections would be less than significant.

Measure DD Addendum EIR Transportation Study

July 22, 2011

Exhibit 9: Traffic Operations at Intersections for Near-Term Conditions (2015)

Intersection	<u>Existing</u>				<u>Project</u>			
	<u>AM Peak</u>		<u>PM Peak</u>		<u>AM Peak</u>		<u>PM Peak</u>	
	LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²	LOS	Delay ²
1 Harrison St. & Grand Ave.	C	26.6	C	29.4	C	27.1	D	52.3
2 Harrison St. & 21st St.	A	9.0	B	14.3	B	13.5	B	19.7
3 Harrison St. & Lakeside Dr.	A	6.5	B	15.0	B	13.1	C	22.3
4 Harrison St. & 20th St	C	32.9	C	34.2	C	23.4	B	18.8
5 Lakeside Dr. & 20th St.	B	19.6	B	12.2	(Intersection would not exist)			
6 Webster St. & 20th St.	B	19.8	B	17.5	C	20.6	B	18.9
7 Lakeside Dr. & Jackson St.	A	8.9	A	9.0	B	11.1	A	10.0
8 Lakeside Dr. & Madison St.	A	4.1	A	3.7	A	6.1	A	4.2
Source: Dowling Associates, 2011								
Notes:								
¹ LOS = Level of Service								
² Average control delay in seconds per vehicle								

Cumulative (2030) Conditions

Traffic volumes for the analysis of cumulative (2030) conditions were taken from the traffic study for the Emerald Views Residential Development project, which included traffic volumes for the Kaiser Center Office project. Traffic operations for cumulative conditions at study intersections are shown in Exhibit 10.

The project in combination with all reasonably foreseeable projects would increase delays at most intersections by 2030. All intersections except one would operate at LOS C or better – above the City’s traffic load and capacity thresholds. The project would reduce existing delays at the Harrison Street & 20th Street intersection by more than 24 percent.

At the Harrison Street and Grand Avenue intersection, the project in combination with all reasonably foreseeable projects would cause the LOS to degrade from LOS C to LOS F during the p.m. peak hour, which would constitute a significant cumulative impact. The project would not generate traffic and would not change traffic volumes at the Harrison & Grand intersection. Therefore, the project would not contribute to the cumulative impact at this intersection and the project’s contribution to the cumulative impact at this intersection would not be considerable. No mitigation measures would be required for the project.

Options were evaluated to determine if this failure to comply with the City’s LOS E service standard for the intersection could be met and at the same time improve access for

Measure DD Addendum EIR Transportation Study

July 22, 2011

pedestrians and bicyclists. A discussion of that evaluation is provided in the following section.

Exhibit 10: Traffic Operations at Intersections for Cumulative (2030) Conditions

Intersection	<u>Existing</u>				<u>Project</u>			
	<u>AM Peak</u>		<u>PM Peak</u>		<u>AM Peak</u>		<u>PM Peak</u>	
	LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²	LOS	Delay ²
1 Harrison St. & Grand Ave.	C	26.6	C	29.4	E	72.3	F	95.8
2 Harrison St. & 21st St.	A	9.0	B	14.3	C	29.2	C	26.1
3 Harrison St. & Lakeside Dr.	A	6.5	B	15.0	B	11.3	C	28.4
4 Harrison St. & 20th St	C	32.9	C	34.2	C	21.4	C	25.9
5 Lakeside Dr. & 20th St.	B	19.6	B	12.2	(Intersection would not exist)			
6 Webster St. & 20th St.	B	19.8	B	17.5	C	22.0	C	34.3
7 Lakeside Dr. & Jackson St.	A	8.9	A	9.0	C	29.5	B	15.1
8 Lakeside Dr. & Madison St.	A	4.1	A	3.7	B	10.7	A	5.1
Source: Dowling Associates, 2011								
Notes:								
¹ LOS = Level of Service								
² Average control delay in seconds per vehicle								

Options Evaluated to Improve Multi-Modal Service at the Harrison St. & Grand Ave. Intersection**Option 1**

One option to improve access for pedestrians and bicyclists at the Harrison Street & Grand Avenue intersection might be to eliminate the channelized right lane serving traffic turning from northbound Harrison Street onto eastbound Grand Avenue. This change would require right-turning motor vehicles from northbound Harrison Street to pass through the main part of the intersection. The change would improve access for bicyclists and allow a bike lane to be marked for the northbound approach at the intersection between the through and right-turn lane up to the intersection stop line.

The effects on pedestrians might not be quite as positive. Pedestrians crossing Grand Avenue at the east leg of the intersection would need to cross a heavy volume of northbound right-turning vehicles that would face a circular green traffic signal indication. The California Vehicle Code requires vehicles to yield to pedestrians in a crosswalk on a circular green signal indication; however, motorists may be more inclined to proceed when facing a circular green signal indication compared to the current situation, where they face a

Measure DD Addendum EIR Transportation Study

July 22, 2011

circular red signal when pedestrians have the walk signal across the channelized right turn lane.

The effects of Option 1 on motor vehicle traffic operations are shown in Exhibit 11. The adverse effect of Option 1 in the cumulative (2030) p.m. peak hour, when traffic would operate at LOS F, would be a significant impact on motor vehicle traffic operations. The primary reason traffic operations would be adversely affected by implementation of Option 1 is that northbound right turning vehicles would be required to yield to pedestrians in the crosswalk, whereas, for the existing configuration, vehicles have a protected movement with no pedestrian conflicts.

Exhibit 11: Traffic Operations at Harrison Street & Grand Avenue for Option 1

Year	<u>Existing Configuration</u>				<u>Option 1 Configuration</u>			
	<u>AM Peak</u>		<u>PM Peak</u>		<u>AM Peak</u>		<u>PM Peak</u>	
	LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²	LOS	Delay ²
Near-Term (2015)	C	27.1	D	52.3	C	27.1	E	56.6
Cumulative (2030)	E	72.3	F	95.8	E	72.3	F	102.2
Source: Dowling Associates, 2011								
Notes:								
Significant impacts are shown in Bold Highlights .								
¹ LOS = Level of Service								
² Average control delay in seconds per vehicle								

Option 2

A second option to improve access for pedestrians and bicyclists at the Harrison Street & Grand Avenue intersection could be to implement the change described for Option 1 plus the following additional changes:

1. Convert one of the through lanes to a combination through-right lane, leaving an exclusive right turn lane and a shared through-right turn lane
2. Provide actuated-uncoordinated signal control

This change would not improve bicycle access as well as Option 1. No bike lane could be marked for the northbound approach at the intersection stop line, and bicyclists would have to fully occupy the combination through-right lane to avoid conflicts with right-turning motor vehicles from that lane. The effects for Option 2 would also be more challenging for pedestrians, who would have to cross two lanes of right turning motor vehicles at the east leg of the intersection.

Measure DD Addendum EIR Transportation Study

July 22, 2011

The effects of Option 2 on motor vehicle traffic operations are shown in Exhibit 12. In this case, motor vehicle traffic operations would be significantly improved. During the p.m. peak hour for cumulative conditions, traffic operations would be improved from LOS F to LOS E and would be brought into compliance with the City's standard for traffic operations at intersections in this area.

Exhibit 12: Traffic Operations at Harrison Street & Grand Avenue for Option 2

Year	<u>Existing Configuration</u>				<u>Option 2 Configuration</u>			
	<u>AM Peak</u>		<u>PM Peak</u>		<u>AM Peak</u>		<u>PM Peak</u>	
	LOS ¹	Delay ²	LOS ¹	Delay ²	LOS ¹	Delay ²	LOS	Delay ²
Near-Term (2015)	C	27.1	D	52.3	C	22.6	D	49.0
Cumulative (2030)	E	72.3	F	95.8	E	56.4	E	78.9
Source: Dowling Associates, 2011								
Notes:								
Significant impacts are shown in Bold Highlights .								
¹ LOS = Level of Service								
² Average control delay in seconds per vehicle								

Due to the negative effects of Option 1 and Option 2 on pedestrian access, neither is suggested as an alternative to the existing configuration.

Transit

Several transit lines (11, 58L, 805, and NL) run along routes that traverse 20th Street and the northern portion of Harrison Street through the project limits. The improvements in traffic operations described above for motor vehicles would also improve service for transit operations. The project is expected to reduce travel times for AC Transit buses. Therefore, the project impacts on transit service would be less than significant.

Traffic Safety

Safety for Roadway Users

The project is expected to improve traffic safety for all modes of travel. Therefore, the project impacts on traffic safety would be less than significant.

Pedestrian Safety

The pedestrian crossing distance across the south leg of Harrison Street at 20th Street would be increased by the addition of one right turn lane. This increased crossing distance should not result in a substantial decrease in pedestrian safety as the crossing would be controlled by traffic signals.

Measure DD Addendum EIR Transportation Study

July 22, 2011

Pedestrian safety would be improved by:

- Eliminating the 20th Street vehicular link between Harrison Street and Lakeside Drive and thereby eliminating the need for a pedestrian crossing across the east 20th Street leg of the Harrison Street & 20th Street intersection.
- Providing more frequent pedestrian crossing “walk” indications across the west 20th Street leg at the Harrison Street & 20th Street intersection.
- Reducing the roadway width of Lakeside Drive and adding a pedestrian refuge island on Lakeside Drive south of the Harrison Street intersection
- Reducing the number of travel lanes from four lanes to three on southbound Harrison Street from Grand Avenue to Lakeside Drive

The project impacts on pedestrian safety would be less than significant.

Bus Rider Safety

Bus rider safety would not be affected by the project. No existing bus facilities would be removed and pedestrian access to bus stops would be improved by the improvements to pedestrian safety previously described. Therefore, the project impacts on bus rider safety would be less than significant.

Bicyclist Safety

Bicyclist safety will be improved by the addition of bike lanes along both sides of Harrison Street between Grand Avenue and Lakeside Drive and along both sides of Lakeside Drive south of Harrison Street. Therefore, the project impacts on bicyclist safety would be less than significant.

Construction

Construction of the project may result in a temporary, adverse effect on the circulation system; however, construction will be staged in a manner that should minimize the adverse effects and those effects should not be substantial. The conditions of approval for this project will ensure that construction effects be minimized and the project impacts of construction on the circulation system would be less than significant.

Planning-Related Non-CEQA Issues

Parking

The Court of Appeal has held that parking is not part of the permanent physical environment, that parking conditions change over time as people change their travel patterns, and that unmet parking demand created by a project need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects.³ Similarly, the December 2009 amendments to the State CEQA Guidelines (which become effective March 18, 2010) removed parking from the State’s Environmental

³ San Franciscans Upholding the Downtown Plan v. the City and County of San Francisco (2002) 102 Cal.App.4th 656.

Measure DD Addendum EIR Transportation Study

July 22, 2011

Checklist (Appendix G of the State CEQA Guidelines) as an environmental factor to be considered under CEQA. Parking supply/demand varies by time of day, day of week, and seasonally. As parking demand increases faster than the supply, parking prices rise to reach equilibrium between supply and demand. Decreased availability and increased costs result in changes to people's mode and pattern of travel. However, the City of Oakland, in its review of the proposed project, wants to ensure that the project's provision of parking spaces along with measures to lessen parking demand (by encouraging the use of non-auto travel modes) would result in minimal adverse effects to project occupants and visitors, and that any secondary effects (such as on air quality due to drivers searching for parking spaces) would be minimized. As such, although not required by CEQA, parking conditions are evaluated in this document as a non-CEQA topic for informational purposes.

Parking deficits may be associated with secondary physical environmental impacts, such as air quality and noise effects, caused by congestion resulting from drivers circling as they look for a parking space. However, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, shuttles, taxis, bicycles or travel by foot), may induce drivers to shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to alternative modes of travel would be in keeping with the City's Public Transit and Alternative Modes Policy (sometimes referred to as the "Transit First" policy).

Additionally, regarding potential secondary effects, cars circling and looking for a parking space in areas of limited parking supply is typically a temporary condition, often offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Hence, any secondary environmental impacts that might result from a shortfall in parking in the vicinity of the proposed project are considered less than significant.

This document evaluates if the project's estimated parking demand (both project-generated and project-displaced) would be met by the project's proposed parking supply or by the existing parking supply within a reasonable walking distance of the project site.⁴ Project-displaced parking results from the project's removal of standard on-street parking, City or Redevelopment Agency owned/controlled parking and/or legally required off-street parking (non-open-to-the-public parking which is legally required).

The project would remove six (6) metered parking spaces on the south side of 20th Street and approximately 9-10 spaces on the east side of the Lakeside Drive and Jackson Street intersection.

Transit Ridership

Transit load is not part of the permanent physical environment; transit service changes over time as people change their travel patterns. Therefore, the effect of the proposed

⁴ The analysis must compare the proposed parking supply with both the estimated demand and the Oakland Planning Code requirements.

Measure DD Addendum EIR Transportation Study

July 22, 2011

project on transit ridership need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects, such as causing the construction of new permanent transit facilities which in turn causes physical effects on the environment. Furthermore, an increase in transit ridership is an environmental benefit, not an impact. One of the goals of the Land Use and Transportation Element of the Oakland General Plan is to promote transit ridership. The City of Oakland, however, in its review of the proposed project, wants to understand the project's potential effect on transit ridership. As such, although not required by CEQA, transit ridership is evaluated in this document as a non-CEQA topic for informational purposes.

This document evaluates whether the project would exceed any of the following:

- Increase the average ridership on AC Transit lines by three (3) percent at bus stops where the average load factor with the project in place would exceed 125% over a peak thirty minute period;
- Increase the peak hour average ridership on BART by three (3) percent where the passenger volume would exceed the standing capacity of BART trains; or
- Increase the peak hour average ridership at a BART station by three (3) percent where average waiting time at fare gates would exceed one minute.]

The project is not expected to have a significant effect on transit ridership.